

CLAIM LISTING
AMENDMENTS TO THE CLAIMS

Claim 1 (Amended): A pumping system comprising, in combination:

a source of fluid for selective pressurization;

a hydraulic mechanism for applying high pressure to said fluid
further comprising an ergonomically designed pistol-grip handle having a trigger pivotally mounted within a housing mounted at upper end of the handle, the housing including valves mounted therein for controlling the movement of fluid and an actuator, at a position distal to the trigger on the end of housing allowing manual pressure release and pressurizing by one hand of a user;

a conduit for selectively carrying said fluid from said source when said fluid is pressurized, and

a container of a viscous material connected to said conduit to receive pressurized fluid from said conduit to selectively force said viscous material from said container.

Claim 2 (Original): The system recited in claim 1, wherein the conduit is a flexible tube.

Claim 3 (Original): The system recited in claim 1, wherein said source of fluid comprises a reservoir for storing said fluid.

Claim 4 (Original): The system recited in claim 1, wherein said fluid is an incompressible liquid.

Claim 5 (Withdrawn Previously).

Claim 6 (Cancelled).

Claim 7 (Cancelled).

Claim 8 (Cancelled).

Claim 9 (Amended): The system recited in claim 1 including, connector means for connecting said conduit to said container wherein the connector means rotates about said conduit to permit selective bleeding of air from said container.

Claim 10 (Withdrawn):

Claim 11 (Withdrawn):

Claim 12 (Amended): The system recited in claim 1, the manual pressure release mechanism operatively connected to said source of fluid for selectively relieving pressure from said fluid being the actuator located at a portion distal to the trigger on the end of the housing.

Claim 13 (Cancelled).

Claim 14 (Cancelled).

Claim 15 (Withdrawn Previously).

Claim 16 (New): The system of claim 1, where the system operates at moderate to high pressures ranging from at least about 1,000 psi to 2,000 psi.

Claim 17 (New): The system of claim 1 wherein, said conduit is long enough to permit a user/surgeon to be outside of a radiation field of a patient being imaged.

Claim 18 (New): The pumping system of claim 17, further comprising valves within the housing for controlling the movement of said fluid from said source of fluid through said conduit whereby and, a connector which is capable of rotating around the conduit and bleeding off of any air present when the system is operating, both manually and automatically.

Claim 19 (New): An improved system for operating a hydraulic pressure pump for medical usage, comprising:

- a hand-piece with a housing shaped ergonomically for comfort of a user that provides tactical feedback, having a lever operated hydraulic pump and fluid reservoir;

- a connecting tube;

- a remote connector which seals to a syringe body;

- whereby the pump expels fluid from the fluid reservoir, through the connecting tube into the top of the syringe and where fluid presses on the syringe plunger, thereby expelling the material contained in the primary chamber of the syringe therefrom; and

a low viscosity, inexpensive secondary incompressible fluid is used in the connecting tube lowering the force required to expel material from the syringe, and reducing the volume of injected fluid needed.

Claim 20 (currently Amended): The improved system for operating a hydraulic pressure pump for medical usage of claim 19, wherein pressures ranging from at least about 1,000 psi to 5,000 psi allow a user to perform procedures in the spine of a patient.